

Patent Claims:

1. Method for creating marking lines (7) comprising a plurality of elements (70) and consisting of a highly viscous marking material on a surface (6) that is to be marked, especially a road surface, with pressurized marking material being discharged through an outlet that can be opened and closed while being moved relative to the surface, **characterized in that** the marking material is passed through an opening (2) upstream of the outlet or forming the outlet and that the opening cross section of the opening (2) is periodically modified during movement relative to the surface (6) by means of a first, fixed discharge element and a second discharge element which rests against the first discharge element so as to cooperate therewith and is moved relative thereto in an oscillating or rotating fashion on a contact plane.
2. Method according to Claim 1, characterized in that the marking material is discharged from the interior of a housing (11) through a housing bottom (12) forming the first, fixed discharge element, with at least one discharge slot (21) extending transversely to the direction of movement (8) or at least one row (21') of several discharge openings arranged side by side and extending transversely to the direction of movement (8), and that the opening cross section of the opening (2) is modified by a single slide (3) forming the second discharge element and slidable in an oscillating

manner in and against the direction of movement (8), the slide comprising at least one discharge slot (22) extending transversely to the direction of movement (8) or at least one row (22'), extending transversely to the direction of movement, the row comprising several discharge openings arranged side by side.

3. Method according to Claim 1, characterized in that the marking material is discharged from the inside of a housing (11) through a housing bottom (12) forming the first, fixed discharge element, the housing bottom having at least one row (21') comprising several discharge openings arranged side by side transversely to the direction of movement (8), and that the opening cross section of the opening (2) is modified by means of one own slide (3) per discharge opening, slidable in an oscillating manner in and against the direction of movement (8) and forming the second discharge element.
4. Method according to Claim 1, characterized in that the marking material is discharged from the inside of a housing (11) through a housing bottom (12) forming the first, fixed discharge element, with a discharge slot (21) extending transversely to the direction of movement (8), and that the opening cross section of the opening (2) is modified by means of a hollow cylinder (4) forming the second discharge element and rotatably movable by means of an axis (40) extending transversely to the direction of movement (8), said hollow cylinder having second discharge openings (24) arranged in its jacket surface (41).
5. Method according to Claim 4, characterized in that - as discharge openings (24) in the hollow cylinder (4) - round or polygonal openings are used which are arranged

staggered to each other in the circumferential direction of the cylinder as well as in its axial direction.

6. Method according to Claim 4, characterized in that - as discharge openings (24) in the hollow cylinder (4) - slot-shaped openings are used which are arranged staggered to each other in the circumferential direction of the cylinder, parallel to the axial direction of the hollow cylinder (4).
7. Device (1) for creating marking lines (7) comprising a plurality of elements (70) and consisting of a highly viscous marking material on a surface (6) that is to be marked, especially a road surface, with pressurized marking material dischargeable by means of the device (1) through an outlet that can be opened and closed while being moved relative to the surface (6), **characterized in that** the device (1) comprises an opening (2) upstream of the outlet or forming the outlet for the marking material, and that the opening cross section of the opening (2) is periodically modifiable during movement relative to the surface (6) by means of a first, fixed discharge element and a second discharge element which rests against the first discharge element so as to cooperate therewith and movable relative thereto in an oscillating or rotating fashion on a contact plane.
8. Device according to Claim 7, characterized in that the device (1) comprises a housing (11) with a housing bottom (12) forming the first, fixed discharge element, with at least one discharge slot (21) extending transversely to the direction of movement (8) or at least one row (21') of several discharge openings

arranged side by side and extending transversely to the direction of movement (8), and that the opening cross section of the opening (2) is modifiable by a single slide (3) forming the second discharge element and slidable in an oscillating manner in and against the direction of movement (8), the slide comprising at least one discharge slot (22) extending transversely to the direction of movement (8) or at least one row (22'), extending transversely to the direction of movement (8), the row comprising several discharge openings arranged side by side.

9. Device according to Claim 7, characterized in that the device (1) comprises a housing (11) with a housing bottom (12) forming the first, fixed discharge element, the housing bottom having at least one row (22') comprising several discharge openings arranged side by side transversely to the direction of movement (8), and that the opening cross section of the opening (2) is modifiable by means of one own slide (3) per discharge opening of the row (22'), slidable in an oscillating manner in and against the direction of movement (8) and forming the second discharge element.
10. Device according to any one of the claims 7 to 9, characterized in that the device (1) comprises a slide drive (32) ensuring a sliding of the slide/slides (3) with a frequency proportional to a speed of movement of the device (1) relative to the surface (6).
11. Device according to Claim 7, characterized in that the device (1) comprises a housing (11) with a housing bottom (12) forming the first, fixed discharge element, with a slot-shaped discharge opening (21) extending transversely to the direction of movement (8), and that

the opening cross section of the opening (2) is modifiable by means of a hollow cylinder (4) forming the second discharge element and rotatably movable by means of an axis (40) extending transversely to the direction of movement (8), said hollow cylinder having discharge openings (24) arranged in its jacket surface (41).

12. Device according to Claim 11, characterized in that the discharge openings (24) in the hollow cylinder (4) are formed by round or polygonal openings which are arranged staggered to each other in the circumferential direction of the cylinder as well as in its axial direction.
13. Device according to Claim 12, characterized in that the second discharge openings (24) in the hollow cylinder (4) are formed by slot-shaped openings which are arranged staggered to each other in the circumferential direction of the cylinder, parallel to the axial direction of the hollow cylinder (4).
14. Device according to any one of the claims 11 to 13, characterized in that the hollow cylinder (4) rests - with the outer circumference of its jacket surface (41) - in a sliding manner against two discharge opening edges (25) limiting, on the front and on the rear, the slot-shaped discharge opening (21) in the housing bottom (12), seen in the direction of movement (8).
15. Device according to any one of the claims 11 to 14, characterized in that the slot (21) forming the discharge opening (21) in the housing bottom and extending transversely to the direction of movement (8)

is designed with a length which is equivalent to a desired width of the marking lines.

16. Device according to Claim 14 or 15, characterized in that at least one open/closed slide (5) is allocated to the discharge opening (21, 21') in the housing bottom (12) which forms at least one discharge opening edge (25) adjustable in an adjusting direction parallel to the direction of movement (8).
17. Device according to any one of the claims 14 to 16, characterized in that the hollow cylinder (4) is displaceable into a position spaced apart from the discharge opening edges (25).
18. Device according to any one of the claims 11 to 17, characterized in that the device (1) comprises a drive (42) ensuring a driving of the hollowing cylinder (4) with a speed which is proportional to the speed of movement of the device (1) relative to the surface (6).
19. Device according to any one of the claims 7 to 18, characterized in that the housing (11) or the housing bottom (12) and/or the hollow cylinder (4) each form an exchangeable part of the device.
